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(74) Agent: MONACO, Daniel, A.; Drinker Biddle & Reath, LLP, One Logan Square, 18th and Cherry Streets, Philadelphia, PA 19103-6996 (US).

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(71) Applicants (*for all designated States except US*): THOMAS JEFFERSON UNIVERSITY [US/US]; 1020 Walnut Street, Philadelphia, PA 19107 (US). THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA [US/US]; 3160 Chestnut Street, Suite 200, Philadelphia, PA 19104 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): DELGROSSO, Kathleen [US/US]; 205 Pennsylvania Avenue, Aldan, PA 19018 (US). FORTINA, Paolo [US/US]; 2020 Walnut Street, Apt. 10-E, Philadelphia, PA 19130 (US). GRAVES, David [US/US]; 221 Highland Avenue, Devon, PA 19333 (US). SURREY, Saul [US/US]; 5 Grouse Trail, Chaddes Ford, PA 19317 (US).

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(54) Title: METHODS FOR DETECTING NUCLEIC ACID VARIATIONS

(57) Abstract: The invention provides methods and diagnostic test kits for detecting target nucleic acid sequence variations in a sample. In particular, a plurality of oligonucleotide probe sets is provided. Each set has a target specific portion and a barcode. The target specific portions of the probes are suitable for ligation together when hybridized adjacent to one another on a corresponding target polynucleotide. The ligated product contains a barcode that binds to a probe attached to a substrate and hence facilitate the capture of the ligated product on the solid support. Detection is carried out with a gold nanoparticle-attached barcode that hybridizes with the barcode on the ligated product.

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